

REMARKS

Claims 1-13, as amended, remain in this application for the Examiner's review and consideration. The claims have been amended to correct informalities and to more clearly define the scope of protection sought by the present application. In particular, claim 3 has been amended to correct antecedent basis. Claims 14-31 have been withdrawn from consideration with the present invention as being drawn to a non-elected group without prejudice to pursue the subject matter of these claims in one or more divisional or continuation applications. Moreover, these withdrawn claims are withdrawn subject to reinstatement in the event the requirement for restriction is withdrawn or overruled. As these amendments do not introduce any new matter into the above-identified application, their entry at this time is warranted.

The specification has been amended to insert the application number and filing date of a patent application reference that was previously referenced by attorney docket number.

Restriction to one of the following inventions was required under 35 U.S.C. § 121 for the reasons given in paragraphs 5-8 of the Office Action:

- I. Group I: claims 1-13
- II. Group II: claims 14-31.

It was asserted that the inventions of the groups are distinct and have acquired separate status in the art as shown by their different classifications. In particular, the claims of Group I were said to be directed to a method of evaluating stock prices, and the claims of Group II were said to be drawn to a physical medium/system for evaluating moving queries over moving vehicles. Applicants were required to elect a single group to be examined. Applicants provisionally elect Group I: claims 1-13 to be examined with traverse for the reasons that follow.

Contrary to the assertion that claims 1-13 are drawn to a method of evaluating stock prices and that claims 14-31 are drawn to a physical medium/system for evaluating moving queries over moving vehicles, there is no such distinction in the recitations of these claims. Claim 1, the only independent claim in Group I, recites a method for evaluating a plurality of moving queries over moving objects. Claims 14 and 27, the independent claims in Group II recite a method for evaluating a plurality of moving queries over moving objects and a plurality of moving objects respectively. There are no recitations in claim 1 regarding the evaluation of stock prices specifically. Similarly, there are no recitations in claims 14 and 27

regarding moving queries over moving vehicles. All three claims contain the same recitation of moving objects. Moving objects are defined by the specification on page 5, lines 11-18.

The moving objects 12 can represent physical objects that move in a two-dimensional or three-dimensional space, for example people, cars, airplanes, cargo ships, delivery vans, cellular phones, taxi cabs, police vehicles, fire department equipment, laptop or portable computers, packages and inventory items. Moving objects may also include things not traditionally associated with the conventional meaning of "object". For example, moving objects may also include stock prices and distributed sensor readings for environmental surveillance, such as temperature and barometric pressure.

Therefore, moving objects include both vehicles and stock prices among other objects, and all three independent claims recite moving objects generally. The Examiner is attempting to selectively read limitations into the claims from the specification. In particular, the limitation of stock prices is read into claim 1, and the limitation of vehicles is read into claims 14 and 27. Reading limitations from the specification into the claims, however, is impermissible. Therefore, the three independent claims recite the same essential characteristics of a single disclosed embodiment of the present invention. Moreover, the two groups of claims are not independent and distinct as required for a valid restriction requirement. In fact, Group I is related to Group II as a method or process and an apparatus or system used in the practice of the process. Thus, the point of distinction between the two groups does not exist, and the restriction requirement is not proper. In view of the impropriety of the restriction requirement, Applicants respectfully request that this restriction requirement be reconsidered and withdrawn.

It was stated that claim 16 lacks antecedent basis for the reasons given in paragraph 2 of the Office Action. Applicants note that claim 16 has been withdrawn from consideration with the present application as being drawn to a non-elected group, rendering this rejection moot. However, should the restriction requirement be removed and claim 16 be reinstated, Applicants would address the antecedent basis issues at that time.

Claims 1, 14 and 27 were rejected under 35 U.S.C. § 112, second paragraph, for the reasons given in paragraph 3 of the Office Action. It was asserted that Applicants do not disclose how to create an index for a moving object or what specific tools to use for that

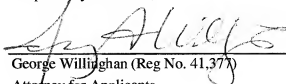
creation and that one with ordinary skill in the art cannot duplicate a working model of the claimed invention. Applicants disagree with this rejection for the reasons that follow.

This rejection has been rendered moot with respect to claims 14 and 27 as these claims have been withdrawn as being directed to a non-elected group. However, the following statements with respect to claim 1 are applicable to claims 14 and 27. With regard to claim 1, the specification clearly supports the recitation “creating an object index” for each one of the plurality of moving objects and a query index for each one of the moving queries using the corresponding bounding box” as currently recited in claim 1. The specification describes how to create an index for a moving object and specific tools used for the creation of these indexes. In general, an index provides an indication of an object, for example the location of an object. The objects in this case are moving objects and moving queries. Although the location of a moving object can be indexed by the location of the object itself and the location of a moving query can be indexed by the location of the focal object and spatial range of that moving query, claim 1 recites that the object indices and query indices are created using the corresponding bounding box of each moving object and moving query. Therefore, instead of indexing directly on the positions of moving objects, focal objects and moving queries, the bounding boxes are used. (page 8, lines 25-27). The creation of the bounding boxes and specific arrangements of using these boxes to index moving object and moving queries are described in the specification, for example, from page 8, line 25 to page 9, line 28 and the accompanying figures. Examples of these arrangements include motion-sensitive bounding boxes and spatial index methods. Therefore, the claims particularly point out and distinctly claim that moving objects and moving queries are indexed using bounding boxes, and the specification clearly teaches one of ordinary skill in the art how to create bounding boxes of moving objects and moving queries and how to use these bounding boxes to index the moving objects and moving queries. Thus, Applicants assert that this rejection is misplaced and should be withdrawn.

Applicants assert that all claims are now in condition for allowance, early notification of which is respectfully requested. As the present amendments do not introduce any new claims above the original number of filed claims, no fees are believed due for the submission of this amendment.

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Respectfully submitted,



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